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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,861	02/07/2005	Ichiro Okamoto	450100-05043	1879

7590 07/11/2006  
William S Frommer  
Frommer Lawrence & Haug  
745 Fifth Avenue  
New York, NY 10151

EXAMINER

LOFTIN, CELESTE

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,861	<b>Applicant(s)</b> OKAMOTO, ICHIRO	
	<b>Examiner</b> Celeste L. Loftin	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/02/2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

1. Applicant's arguments with respect to claims 10-19 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that the if power to the open sensor or the close sensor describe in Ko is lost, open/closed state of the sub-body cannot be detected and the power supply to these sensors is necessary for detection opening and closing of the sub-body, which may be on example of mode shift. However, Ko discloses when the phone is completely opened by the opening/closing mechanism, the hall element and the magnet of the open sensor are in contact with each other and the sensor outputs a detection signal (i.e. detection) to the CPU and when the phone is completely closed the hall element (different from the open hall element) and the magnet (different from the open magnet) of the closed sensor contact each other and outputs a detection signal to the CPU. The state of the phone cannot be closed and open at the same time. Therefore, power is being supplied to the open sensor when the phone is open or the hall element and the magnet create a closed connection (meaning that the closed hall element and magnet are not making contact). Thus, power can be supplied to the open sensor or the closed sensor.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko, (U.S. Publication 2002/0052228 A1) in view of Song, (U.S. Patent 6373397).

Regarding claim 10, Ko discloses an electronic device, comprising:

a rotary operating unit that is configured to accept rotation operation of a user (the portable terminal in which a sub-body can be opened from or closed onto a main body in an automatic or manual opening according to the control of the user)

(paragraph [0020] [0022]),

an active element (i.e. sensors) for detecting rotation said rotary operation unit, and (the open and close sensors detect when the body is in an open or closed position and then outputs a detection signal to the control unit) ( paragraph [0025]), and

control means for controlling a power supply to said active element (it is inherent that power is also being supplied to the sensors (the reference discloses a control unit controls the overall control of the portable radio terminals and power is supplied to the control unit and each circuit portion according to the switching on/off of the power key)) (paragraphs [0023] and [0031]).

Ko fails to disclose

the electronic device has three operation modes and

said control means controls the power supply to said active element depending on said modes.

In a similar field of endeavor, Song discloses the electronic device has three operation modes (when the flip cover is closed the CPU outputs a high signal (this turns

on the first back light) however the flip switch outputs a low signal (causing the second light not to turn on) and the stand by time for this reference is considered to be when the user pushes the function selection key at the state when the flip cover is closed) (**col. 4 lines 21-30**) and

said control means controls the power supply to said active element depending on said modes (when the flip cover is closed the CPU outputs a high signal (this turns on the first back light) however the flip switch outputs a low signal (causing the second light not to turn on) and the stand by time for this reference is considered to be when the user pushes the function selection key at the state when the flip cover is closed) (**col. 4 lines 21-30**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include the electronic device has three operation modes and said control means controls the power supply to said active element depending on said modes. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 11, the combination discloses an electronic device according to claim 10. Ko further discloses

said control means controls the power supply to one of said first and second active elements in at least one of said three modes (it is inherent that power is also being supplied to the sensors (the reference discloses a control unit controls the overall control of the portable radio terminals and power is supplied to the control unit and each

circuit portion according to the switching on/off of the power key)) (**paragraphs [0023] and [0031]**).

Ko fails to disclose wherein said active element includes a first and second active elements.

Song discloses said active element includes a first (i.e. first back light) and second active elements (i.e. second back light) (**col. 3 lines 60-66**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said active element includes a first and second active elements. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 12, the combination discloses an electronic device according to claim 11. Song further discloses further comprising:

first and second power-supply control means for switching on and off the power supplied to each of said first and second active elements (the first back light depends on the signal from the CPU and the second back light depends on the signal coming from the flip switch (if the signal coming from the CPU is high the second light will not light up the key pad unless the signal from the flip switch is high)) (**col. 4 lines 21-30**), wherein

said control means makes said first and second power-supply control means on in a normal use mode (if the CPU outputs a high signal and the flip switch sends a high signal (flip cover is open), both the first and second lights are on) (**col. 4 lines 21-30**), and makes said first power-supply control means on (when the flip cover is closed the CPU outputs a high signal (this turns on the first back light) however the flip switch

outputs a low signal (causing the second light not to turn on)) (**col. 4 lines 21-25**) and said second power-supply control means off in a first stand-by mode (the stand by time for this reference is considered to be when the user pushes the function selection key at the state when the flip cover is closed) (**col. 4 lines 21-26**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said active element includes a first and second active elements, first and second switching means switching on and the power supplied each of said first and second active elements are provided, and said control means turns on said first and second switching means an normal use time, and turns on said first and turns off said second switching means in a switching means first stand-by time.

Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 13, the combination discloses an electronic device according to claim 12. Song further discloses wherein

said control means further makes said first and second power-supply control means off in a second stand-by mode where key operation setting is forbidden (reads on the first and second back lights are not driven if the flip cover is close and the function selection key is not input (this is considered to be the second stand by time)) (**col.4 lines 30-35**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said control means further makes said first and second power-supply control means off in a second stand-by mode where key operation

setting is forbidden. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 14, the combination discloses an electronic device according to claim 12. Song further discloses further comprising:

pulse-detecting means for detecting a pulse signal transmitted from the first active element in response to rotation of said rotary operating unit to generate an interrupt signal (when the flip cover is open the flip switch sends a signal to the CPU which sends a signal to turn on the first back light, that same signal is sent (considered the interrupt) to the AND gate (the AND gate also has a high signal coming from the flip switch because the flip is open) causing the AND gate to output a high signal and turn the second back light on) (**col. 4 lines 20-30 and Figure 3**), wherein

said control means makes said second power-supply control means on by the interrupt signal from said pulse-detecting means when said rotary operating unit is operated to rotate in said first stand-by mode (when the flip cover is open the flip switch sends a signal to the CPU which sends a signal to turn on the first back light, that same signal is sent (considered the interrupt) to the AND gate (the AND gate also has a high signal coming from the flip switch because the flip is open) causing the AND gate to output a high signal and turn the second back light on) (**col. 4 lines 20-30 and Figure 3**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include pulse-detecting means for detecting a pulse signal transmitted from the first active element in response to rotation of said rotary operating



unit to generate an interrupt signal, wherein said control means makes said second power-supply control means on by the interrupt signal from said pulse-detecting means when said rotary operating unit is operated to rotate in said first stand-by mode. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 15, the combination discloses an electronic device according to claim 14. Song further discloses wherein

said control means makes said first power-supply control means or both of the first and second power-supply control means on, when key operation forbidden setting is released in said second stand-by mode (if the user pushes the function key but the flip cover is open both the first and the second back lights are on) (**col.4 lines 19-30, figure 2**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said control means makes said first power-supply control means or both of the first and second power-supply control means on, when key operation forbidden setting is released in said second stand-by mode. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 16, the combination discloses an electronic device according to claim 11. Ko further discloses further comprising:

power-supply control means for switching on and off the power supply to said second active element (power is supplied to the control unit and each circuit portion according to the switching on/off of the power key (**paragraphs [0031]**), wherein

said control means makes said power-supply control means on in a normal use mode (reads on the control unit controls the first switch closed the second switch open in the powered on state of the terminal) (**paragraph [0029]**).

Ko fails to disclose said control means makes said power-supply control means off in a stand-by mode.

Song discloses wherein said control means turns off said power-supply-control means in a stand-by time (reads on the first and second back lights are not driven if the flip cover is close and the function selection key is not input (this is considered to be the second stand by time)) (**col.4 lines 30-35**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include wherein said control means turns off said power-supply-control means in a stand-by time. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 17, the combination discloses an electronic device according to claim 16. Song further discloses further comprising:

pulse-detecting means for detecting a pulse signal transmitted from the first active element in response to rotary operation of said rotary operating unit to generate an interrupt signal (when the flip cover is open the flip switch sends a signal to the CPU which sends a signal to turn on the first back light, that same signal is sent (considered the interrupt) to the AND gate (the AND gate also has a high signal coming from the flip switch because the flip is open) causing the AND gate to output a high signal and turn the second back light on) (**col. 4 lines 20-30 and Figure 3**), wherein

said control means makes said power-supply control means on by the interrupt signal from said pulse-detecting means, when said rotary operating unit is operated to rotate in said stand-by mode (when the flip cover is open the flip switch sends a signal to the CPU which sends a signal to turn on the first back light, that same signal is sent (considered the interrupt) to the AND gate (the AND gate also has a high signal coming from the flip switch because the flip is open) causing the AND gate to output a high signal and turn the second back light on) (**col. 4 lines 20-30 and Figure 3**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include pulse-detecting means for detecting a pulse signal transmitted from the first active element in response to rotary operation of said rotary operating unit to generate an interrupt signal, wherein said control means makes said power-supply control means on by the interrupt signal from said pulse-detecting means, when said rotary operating unit is operated to rotate in said stand-by mode. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 18, the combination discloses an electronic device according to claim 12. Ko further discloses wherein

said electronic device has a structure in which a first casing and a second casing are connected to be capable of being opened and closed (reads on a portable terminal in which a sub-body can be opened from or closed onto a main body) (**paragraph 0020**)), and

Ko fails to disclose

said control means shifts to the second stand-by mode and makes said first and second power-supply control means off when said casings are closed, and shifts to the normal use mode and makes said first and second power-supply control means on when said casings are opened.

Song discloses said control means shifts to the second stand-by mode and makes said first and second power-supply control means off when said casings are closed (if the flip cover is closed a voltage difference is calculated and applied to the CPU) (**col. 5 lines 4-56**), and shifts to the normal use mode and makes said first and second power-supply control means on when said casings are opened (reads on if the flip cover is open the voltage difference is no generated) (**col. 5 lines 65-67 and col. 6 lines 1-5**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said control means shifts to the second stand-by mode and makes said first and second power-supply control means off when said casings are closed, and shifts to the normal use mode and makes said first and second power-supply control means on when said casings are opened. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 19, the combination discloses an electronic device according to claim 11. Song further discloses further comprising:

· a third power-supply control means for switching on and off power supply to a backlight for lighting display means (if the flip is closed and the function key is not

selected then the first and second back lights are not driven) (**col. 4 lines 30-35**), wherein

said control means makes said first power-supply control means on and makes said second and third power-supply control means off, when shifted from said normal use mode to said first stand-by mode (driving only the first backlight if the function selection key is selected and the flip cover is close (this suggests a standby mode because power is still being supplied but the phone is not in use)) (**col. 4 lines 45-60**). At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include a third power-supply control means for switching on and off power supply to a backlight for lighting display means, wherein said control means makes said first power-supply control means on and makes said second and third power-supply control means off, when shifted from said normal use mode to said first stand-by mode. Motivation for this modification would have been to reduce unnecessary power consumption.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Celeste L. Loftin whose telephone number is 571-272-2842. The examiner can normally be reached on Monday thru Friday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CL

  
JOSEPH FEILD  
SUPERVISORY PATENT EXAMINER